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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,917	08/09/2006	Masayoshi Yoshida	8048-1175	2906
<small>465</small> YOUNG & THOMPSON 209 Madison Street Suite 500 ALEXANDRIA, VA 22314			<small>7590</small> EXAMINER FISCHER, MARK L	
			ART UNIT 2627	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/588,917

Applicant(s)

YOSHIDA ET AL.

Examiner

MARK FISCHER

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-23 and 26-35 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 18-23 and 26-35 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 09 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is in response to the Preliminary Amendment filed on September 4, 2008. Claims 1-17, 24, and 25 are cancelled, Claims 18-23 and 26-35 are previously presented.

Specification

2. The disclosure is objected to because of the following informalities: Paragraphs [0007] to [0012] contain references to claims which have been cancelled.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 34 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 34 is drawn to a "program" per se as recited in the preamble and as such is non-statutory subject matter. See MPEP § 2106.1V.B.1.a. Data structures not claimed as embodied in computer readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed computer readable medium encoded with a data structure defines structural and functional interrelationships

between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claim 18 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 11/790745.

Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 1 of 11/790745 recites all of the limitations found in claim 18 of the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

6. Claim 19 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 2 of copending Application No. 11/790745. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 2 of 11/790745 recites all of the limitations found in claim 19 of the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 27-29 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 27, line 7 and claim 31, line 7, it is unclear and indefinite what “verifying said record information recording area” means, verifying what aspect of said record information recording area?

Claim 28, line 4, recites the limitation "the record information". There is insufficient antecedent basis for this limitation in the claim.

Additionally, claim 29 is rejected for its dependence on claim 28.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(e) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 18-23 and 27-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al. (U.S. Pub. No. 2004/0174793 A1, hereinafter Park) in view of Mitsuda et al. (U.S. Pat. No. 6956798 B2, hereinafter Mitsuda).

Regarding claim 18, Park discloses an information recording medium (Fig. 9) comprising: a record information recording area (Fig. 9, User Area) for recording therein record information; a management information recording area (Fig. 9, Lead-in Area) for recording therein a plurality of types of management information for managing said record information recording area. Park does not explicitly disclose a reliability information recording area for recording therein a plurality of reliability information, each of which indicates reliability of whether or not respective one of the plurality of types of management information is correctly updated. However, Mitsuda discloses a reliability information recording area (Fig. 2, element 13) for recording therein a plurality of reliability information, each of which indicates reliability of whether or not respective one of the plurality of types of management information is correctly updated (Col. 6, lines 12-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Park with Mitsuda with the motivation to have a way to clearly tell if data in a section has been updated or not even in the event of a disconnection from a power source during the updating procedure (Col. 6, lines 4-27).

Regarding claim 19, Mitsuda discloses that the plurality of reliability information is collectively recorded in said reliability information recording area (see Fig. 2, element 13).

Regarding claim 20, Mitsuda discloses that the management information recording area and the reliability information recording area are unified (in Fig. 2, regions 11-13 can be

considered as parts of a larger region, thus making the management information recording area and the reliability information recording area unified within the larger region).

Regarding claim 21, Park discloses that the plurality of types of management information includes at least one information out of space bitmap information (¶ [0045]) for identifying an already recorded state or an unrecorded state with respect to each block of said record information recording area, defect list information for performing defect management, and OPC pointer information for identifying a position at which next trial writing is performed.

Regarding claim 22, Park discloses (Fig. 6) that management information can be organized along with flags in a table format. It would have been obvious to one of ordinary skill in the art at the time the invention was made to add more information to the table disclosed by Park, and thus add the update flags of Mitsuda in order to have a table that is more useful and better able to catch errors.

Regarding claim 23, Mitsuda discloses that the reliability information includes an inconsistency flag which indicates that the management information and a recording state of the record information recording area managed by the management information are inconsistent (Fig. 3, S14).

Regarding claim 26, Park in view of Mitsuda discloses a recording device capable of recording the record information onto the information recording medium according to claim 18; a reading device for reading the reliability information from the reliability information recording area; a determining device for determining the management information corresponding to the reliability information read by the reading device; and a controlling device for controlling the

recording device to record the record information on the basis of the determined management information (see Park, ¶ [0073] and Mitsuda, Col. 1, line 65 to Col. 2, line 20).

Regarding claim 27, Mitsuda discloses a first updating device (Fig. 1, elements 2 and 3) for temporarily updating the reliability information corresponding to the determined management information to indicate that the reliability information is not reliable (Fig. 3, S14); a verifying device (Fig. 1, elements 2 and 3) for verifying the record information recording area managed by the determined management information (Fig. 3, S15); and a second updating device (Fig. 1, elements 2 and 3) for correctly updating the management information after the verification by the verifying device is completed, and definitely updating the reliability information corresponding to the updated management information to indicate that the reliability information is reliable (Fig. 3, S15 and S16).

Regarding claim 28, Park discloses an information recording apparatus for recording record information onto an information recording medium (Fig. 9) comprising: a record information recording area (Fig. 9, User Area) for recording therein a record information; a management information recording area (Fig. 9, Lead-in Area) for recording therein a plurality of types of management information for managing the record area, the information recording apparatus comprising: a record information recording device (¶ [0073]) for recording the record information where it is obvious that the recording device of ¶ [0073] would be used to record the management information as well. Park does not explicitly disclose an inconsistency flag recording area for recording therein an inconsistency flag indicating whether or not each of the plurality of types of management information is correctly updated; and an inconsistency flag recording device for recording the inconsistency flag, the inconsistency flag recording device

recording one symbol information indicating an inconsistency condition as the inconsistency flag before starting the recording by the management information recording device. However, Mitsuda discloses an inconsistency flag recording area for recording therein an inconsistency flag indicating whether or not each of the plurality of types of management information is correctly updated (Col. 1, line 65 to Col. 2, line 20); and an inconsistency flag recording device for recording the inconsistency flag, the inconsistency flag recording device recording one symbol information indicating an inconsistency condition as the inconsistency flag before starting the recording by the management information recording device (Col. 1, line 65 to Col. 2, line 20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Park with Mitsuda with the motivation to have a way to clearly tell if data in a section has been updated or not even in the event of a disconnection from a power source during the updating procedure (Col. 6, lines 4-27).

Regarding claim 29, Mitsuda discloses that the inconsistency flag recording device records another symbol information indicating a consistency condition as the inconsistency flag after ending the recording by the management information recording device (Fig. 3, S16).

Regarding claim 30, Mitsuda discloses an information recording method in an information recording apparatus comprising a recording device capable of recording the record information onto the information recording medium according to claim 18, the information recording method comprising: a reading process of reading the reliability information from the reliability information recording area (Col. 6, lines 12-38); a determining process of determining the management information corresponding to the reliability information read by the reading process (Col. 6, lines 12-38); and a controlling process of controlling the recording device to

record the record information on the basis of the determined management information (Col. 6, lines 12-38).

Regarding claim 31, Mitsuda discloses a first updating process of temporarily updating the reliability information corresponding to the determined management information to indicate that the reliability information is not reliable (Fig. 3, S14); a verifying process of verifying the record information recording area managed by the determined management information (Fig. 3, S15); and a second updating process of correctly updating the management information after the verification by the verifying process is completed, and definitely updating the reliability information corresponding to the updated management information to indicate that the reliability information is reliable (Fig. 3, S15 and S16).

Regarding claim 32, Park discloses an information recording method in an information recording apparatus for recording record information onto an information recording medium (Fig. 9) comprising: a record information recording area (Fig. 9, User Area) for recording therein the record information; a management information recording area (Fig. 9, Lead-in Area) for recording therein a plurality of types of management information for managing the record information recording area, the information recording method comprising: a recording information recording process of recording the record information (§ [0073]); a management information recording process of recording the management information (§ [0073]). Park does not explicitly disclose an inconsistency flag recording area for recording therein an inconsistency flag indicating whether or not each of the plurality of types of management information is correctly updated, an inconsistency flag recording process of recording the inconsistency flag, the inconsistency flag recording process recording one symbol information indicating an

inconsistency condition as the inconsistency flag before starting the recording by the management information recording device. However, Mitsuda discloses an inconsistency flag recording area for recording therein an inconsistency flag indicating whether or not each of the plurality of types of management information is correctly updated (Col. 1, line 65 to Col. 2, line 20), an inconsistency flag recording process of recording the inconsistency flag, the inconsistency flag recording process recording one symbol information indicating an inconsistency condition as the inconsistency flag before starting the recording by the management information recording device (Col. 1, line 65 to Col. 2, line 20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Park with Mitsuda with the motivation to have a way to clearly tell if data in a section has been updated or not even in the event of a disconnection from a power source during the updating procedure (Col. 6, lines 4-27).

Regarding claim 33, Mitsuda discloses that the inconsistency flag recording process records another symbol information indicating a consistency condition as the inconsistency flag after ending the recording by the management information recording process (Fig. 3, S16).

Regarding claim 34, Park discloses the use of a computer program of instructions for tangibly embodying a program of instructions executable by a computer provided in the information recording apparatus according to claim 26, to make the computer function as at least one portion of the reading device, the determining device, the controlling device, and the recording device (§ [0009]).

Regarding claim 35, Park discloses that the information recording medium is a write-once-type information recording medium (§ [0003]), and Mitsuda discloses that the reliability

information is additionally recorded into the reliability information recording area when the management information is updated (Fig. 3, S16).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARK FISCHER whose telephone number is (571) 270-3549. The examiner can normally be reached on Monday-Friday from 9:00AM to 6:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Fischer/
Examiner, Art Unit 2627
3/3/2009
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